

**INFORMATION DISCLOSURE
STATEMENT**

(Use Several Sheets if necessary)

ATTY DOCKET NO.

60991B

SERIAL NO.

10/658,049

APPLICANT

Boriack, et al.

FILING DATE

September 9, 2003

GROUP

1712

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
<i>TS</i>	US 2,144,612	01/24/1939	Britton, et al.	260	633	
<i>TS</i>	US 2,714,602	08/02/1955	Abbott	260	410	
<i>TS</i>	US 4,314,088	02/02/1982	Austin, et al.	568	860	
<i>TS</i>	US 4,413,151	11/01/1983	Michaelson, et al.	568	860	
<i>TS</i>	US 4,496,779	01/29/1985	Myers, et al.	568	860	
<i>TS</i>	US 4,499,255	02/12/1985	Wang, et al.	528	95	
<i>TS</i>	US 4,507,492	03/26/1985	Woo	560	64	
<i>TS</i>	US 4,721,798	01/26/1988	Mulder	549	533	
<i>TS</i>	US 4,740,330	04/26/1988	Wang, et al.	260	395	
<i>TS</i>	US 4,778,863	10/18/1988	Wang, et al.	525	507	
<i>TS</i>	US 4,785,061	11/15/1988	Wang, et al.	525	507	
<i>TS</i>	US 4,871,855	10/03/1989	Marko, et al.	546	134	
<i>TS</i>	US 4,965,364	10/23/1990	Marko, et al.	546	134	
<i>TS</i>	US 5,028,686	07/02/1991	Liao, et al.	528	92	
<i>TS</i>	US 5,126,494	06/30/1992	Gilheany, et al.	568	807	
<i>TS</i>	US 5,227,543	07/13/1993	Sharpless, et al.	568	860	
<i>TS</i>	US 5,260,461	11/09/1993	Hartung, et al.	549	447	
<i>TS</i>	US 5,516,929	05/14/1996	Sharpless, et al.	560	38	
<i>TS</i>	US 5,578,740	11/26/1996	Au, et al.	549	525	
<i>TS</i>	US 6,001,945	12/14/1999	Decker, et al.	528	26	
<i>TS</i>	US 6,005,063	12/21/1999	Van Doorn, et al.	528	86	

EXAMINER ROBERT SELLERS

DATE CONSIDERED

3/7/05

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to Applicant.

**INFORMATION DISCLOSURE
STATEMENT**

(Use Several Sheets if necessary)

ATTY DOCKET NO.
60991B

SERIAL NO.
10/658,049

APPLICANT
Boriack, et al.

FILING DATE
September 9, 2003

GROUP
1712

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
	US 6,087,513	07/11/2000	Liao, et al.	549	524	
	US 6,100,412	08/08/2000	Thiele, et al.	549	523	
	US 6,534,621 B2	03/18/2003	Boriack, et al.	528	87	

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
WO 92/20677	11/26/92	PCT	—	—	
WO 98/35927	08/20/98	PCT	—	—	
WO 99/09020	02/25/99	PCT	—	—	
WO 0064844 A1	11/02/00	PCT	—	—	
WO 0064848 A1	11/02/00	PCT	—	—	
EP 0970951	01/12/00	EP	—	—	
EP 0077201 A2	10/08/82	EP	—	—	

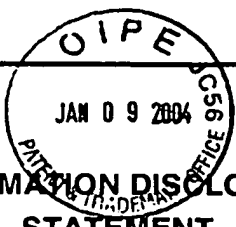
OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, Place of Publication, Etc.)

	Lee et al., "Handbook of Epoxy Resins", Mc-Graw Hill Book Co., New York, NY, pp. 2-3 to 2-4 (1982)
	Leeman et al., "Glycidol Properties, Reaction, Applications", New York, NY, pp. 48-52 (1981)
	Wasserman, et al, "Retention of Configuration in the Opening of cis-and trans-Dypone Oxides", Journal of the American Chemical Society, 78, pp. 1726 (1956)
	Murray, et al., "Olefin Epoxidations Using the Dicyclohexylcarbodiimide-H ₂ O ₂ System", JOURNAL OF ORGANIC CHEMISTRY, 63, pp. 1730-1731,(1998)
	Brink, et al, "Selenium Catalysed Oxidations with Aqueous Hydrogen Peroxide", JOURNAL OF CHEMICAL SOCIETY PERKIN, pp. 224-228 (2001)

EXAMINER ROBERT SELLERS

DATE CONSIDERED 3/7/05

* EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to Applicant.



INFORMATION DISCLOSURE STATEMENT

(Use Several Sheets if necessary)

ATTY DOCKET NO.

60991B

SERIAL NO.

10/658,049

APPLICANT

Boriack, et al.

FILING DATE

September 9, 2003

GROUP

1712

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, Place of Publication, Etc.)

	Murray, "Dioxiranes", CHEMICAL REVIEWS, 89, pp. 1187-1201 (1989)
	Boehlow, et al., "Optical Resolution of Amine N-Oxide by Diastereoisomeric Complex Formation with Optically Active Host Compound", TETRAHEDRON LETTERS, 30, pp. 1839-1842 (1989)
	Neimann, et al., "A New Non-Metal Heterogeneous Catalyst for the Activation of Hydrogen Peroxide", CHEMICAL COMMUNICATIONS, 5, pp. 487-488 (2001)
	"PROCESS FOR MANUFACTURING A HALOHYDRIN INTERMEDIATE AND EPOXY RESINS PREPARED THEREFROM" filed in the United States of America on May 18, 2000; Application Serial No.: 60/205,366; Applicant: Boriack, et al.
	Shing, et al., ANGEWANDTE CHEMICAL, 106, pp. 2408-2409 (1994)
	Beller, et al., "Diols via Catalytic Dihydroxylation", APPL. HOMOGEIOUS CATAL. ORGANOMET. COMPD., 2, pp. 1009-1010 (1996)
	Marko, et al., "Dihydroxylation of Carbon-Carbon Double Bonds", COMPREHENSIVE ASYMMETRIC CATALYSIS, I-III, pp. 713-787 (1999)
	Shing, et al., "Ruthenium-Catalyzed <i>cis</i> -Dihydroxylation of Alkenes Scope and Limitations", CHEMICAL EUROPEAN JOURNAL, 2, pp. 50-57 (1996)
	Johnson, et al., "Catalytic Asymmetric Dihydroxylation-Discovery and Development", CATALYTIC ASYMMETRIC SYNTHESIS, Second Edition, pp. 357-398 (2000)
	ORGANIC SYNTHESSES COLLECTION, VI, pp.342-348 (1988)
	Pini, et al., "Heterogeneous Transition Metal Catalysts", CHIM. IND. (MILAN), 81, pp. 189-199 (1999)
	Bolm, et al. "Asymmetric Dihydroxylations using Immobilized Alkaloids with an Anthraquinone Core", SYNLETT, 1, pp. 93-95 (2001)
	Van Vliet, et al., "Fluorinated Alcohols: Effective Solvents for Uncatalysed Epoxidations with Aqueous Hydrogen Peroxide", SYNLETT, 2, pp. 248-250 (2001)
	Wirth, "Oxygen and Osmium-A New Alliance for Dihydroxylations?", ANGEWANDTE CHEMIE INTERNATIONAL EDITION, 2, pp. 334-335 (2000)
	Bhaumik, et al., "Selective Dihydroxylation over Titanium Silicate Molecular Sieves", JOURNAL OF CATALYSIS, 176, pp. 305-309 (1998)

EXAMINER

ROBERT SELLERS

DATE CONSIDERED

3/7/05

*EXAMINER:

Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to Applicant.


**INFORMATION DISCLOSURE
STATEMENT**

(Use Several Sheets if necessary)

ATTY DOCKET NO.

60991B

SERIAL NO.

10/658,049

APPLICANT

Boriack, et al.














FILING DATE

September 9, 2003

GROUP

1712

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, Place of Publication, Etc.)

	Mehltretter, et al., "An Improved Version of the Sharpless Asymmetric Dihydroxylation", TETRAHEDRON LETTERS, 41, pp. 8083-8087 (2000)
	Sharpless, et al., "The Osmium-Catalyzed Asymmetric Dihydroxylation: A New Ligand Class and a Process Improvement", JOURNAL OF ORGANIC CHEMISTRY, 10, pp. 2768-2771 (1992)
	Kolb, et al., "Catalytic Asymmetric Dihydroxylation", CHEMICAL REVIEWS, 94, pp. 2483 (1994)
	Han, et al., "Soluble Polymer-Bound Ligand-Accelerated Catalysis: Asymmetric Dihydroxylation", JOURNAL OF AMERICAN CHEMICAL SOCIETY, 118, pp. 7632-7633 (1996)
	Salvadori, et al., "Insoluble Polymer-Bound (IPB) Approach to the Catalytic Asymmetric Dihydroxylation of Alkenes", SYNLETT, 8, pp. 1181-1190 (1999)
	Severeys, et al., "A Heterogeneous cis-Dihydroxylation Catalyst with Stable, Site-Isolated Osmium-Diolate Reaction Centers", ANGEWANDTE CHEMIE INTERNATIONAL EDITION, 40, pp. 586-589 (2001)
	Kobayashi, et al., "Catalytic Asymmetric Dihydroxylation of Olefins Using a Recoverable and Reusable Polymer-Supported Osmium Catalyst", JOURNAL OF AMERICAN CHEMICAL SOCIETY, 121, pp. 11229-11230 (1999)
	De Vos, et al., "Highly Selective Epoxidation of Alkenes and Styrenes with H ₂ O ₂ and Manganese Complexes of the Cyclic Triamine 1,4,7-trimethyl-1,4,7-triazacyclononane", CHEMICAL COMMUNICATIONS, pp. 917-918 (1996)
	Koek, et al., "Synthesis and Properties of Hydrophobic [Mn ^{IV} ₂ (μ-O) ₃ (L) ₂] ²⁺ Complexes, Derived from Alkyl Substituted 1,4,7-triazacyclononane Ligands", INORGANICA CHIMICA, 295, pp. 189-199 (1999)
	Fatiadi, "The Classical Permanganate Ion: Still a Novel Oxidant in Organic Chemistry", SYNTHESIS, pp. 85, (1987)
	Pietikainen, "Asymmetric Mn (III)-salen Catalyzed Epoxidation of Unfunctionalized Alkenes with in situ Generated Peroxycarboxylic Acids", JOURNAL OF MOLECULAR CATALYSIS, 165, pp. 73-79 (2001)
	De Vos, et al., "Selective Alkene Oxidation with H ₂ O ₂ and a Heterogenized Mn Catalyst: Epoxidation and a New Entry to Vicinal cis-Diols", ANGEWANDTE CHEMIE INTERNATIONAL EDITION, 38, pp. 980-983, (1999)
	Knops-Gerrits, et al., "Oxidation Catalysis with Semi-Inorganic Zeolite-based Mn Catalysts", JOURNAL OF MOLECULAR CATALYSIS A: CHEMICAL, 117, pp. 57-70, (1997)

EXAMINER

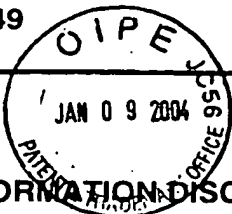
ROBERT SELLERS

DATE CONSIDERED

3/7/05

*EXAMINER:

Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to Applicant.



INFORMATION DISCLOSURE STATEMENT

(Use Several Sheets if necessary)

ATTY DOCKET NO.

60991B

SERIAL NO.

10/658,049

APPLICANT

Boriack, et al.

FILING DATE

September 9, 2003

GROUP

1712

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, Place of Publication, Etc.)

	Sutra, et al., "Preparation of MCM-41 Type Silica-Bound Manganese (III) Schiff-base Complexes", CHEMICAL COMMUNICATIONS, pp. 2485-2486 (1996)
	Herrmann, et al., "Organorhenium Oxides", ACCOUNTS OF CHEMICAL RESEARCH, 30, pp. 169-180 (1997)
	Owens, et al., "Rhenium Oxo Complexes in Catalytic Oxidations", CATALYSIS TODAY, 55, PP. 317-363 (2000)
	Romao, et al., "Rhenium (VII) Oxo and Imido Complexes: Synthesis, Structures, and Applications", CHEMICAL REVIEW, 97, pp. 3197-3246 (1997)
	Herrmann, et al, "Methyltrioxorhenium as Catalyst for Olefin Oxidation", ANGEWANDTE CHEMIE INTERNATIONAL EDITION ENGLISH, 30, pp. 1638-1643 (1991)
	Pietsch, et al., "LReO ₃ Epoxidizes, cis-Dihydroxylates, and Cleaves Alkenes as Well as Alkenylates Aldehydes: Toward an Understanding of Why", ORGANOMETALLICS, 17, pp. 2716-2719 (1998)
	Adam, et al., "Methyltrioxorhenium (VII)-Catalyzed Epoxidation of Alkenes with the Urea/Hydrogen Peroxide Adduct", ANGEWANDTE CHEMIE INTERNATIONAL EDITION ENGLISH, 35, pp. 533-535 (1996)
	Al-Ajlouni, et al., "Kinetics and Mechanism of the Epoxidation of Alkyl-Substituted Alkenes by Hydrogen Peroxide, Catalyzed by Methylrhenium Trioxide", JOURNAL OF ORGANIC CHEMISTRY, 61, pp. 3969-3976 (1996)
	Tan, et al., "Kinetics and Mechanism of the Dihydroxylation and Epoxidation of Conjugated Dienes with Hydrogen Peroxide Catalyzed by Methylrhenium Trioxide", INORGANIC CHEMISTRY, 37, pp. 467-472 (1998)
	Shing, et al., "Solvent Effect of Ruthenium Catalyzed Dihydroxylation", TETRAHEDRON LETTERS, 40, pp. 2179-2180 (1999)
	Ell, et al., "Vanadyl Acetylacetonate as Peroxide Activator in Osmium-Catalyzed Dihydroxylation of Olefins by Hydrogen Peroxide", TETRAHEDRON LETTERS, 42, pp. 2569-2571 (2001)
	Li, et al., "Catalytic Asymmetric Dihydroxylation of Gold Colloids Functionalized with Self-Assembled Monolayers", LANGMUIR, 15, pp. 4957-4959 (1999)

EXAMINER

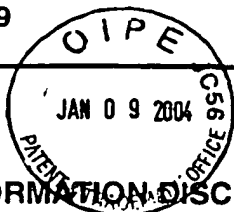
ROBERT SELLERS

DATE CONSIDERED

3/7/05

*EXAMINER:

Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to Applicant.



INFORMATION DISCLOSURE STATEMENT

(Use Several Sheets if necessary)

ATTY DOCKET NO.

60991B

SERIAL NO.

10/658,049

APPLICANT

Boriack, et al.

FILING DATE

September 9, 2003

GROUP

1712

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, Place of Publication, Etc.)

	Austin, et al., "Industrial Uses of Catalytic Oxidation and the Direct Oxidation of Olefins to Glycols", CATALYSIS OF ORGANIC REACTIONS, pp. 269-278 (1985)
	Dobler, et al., "Atom-Efficient Oxidation of Alkenes with Molecular Oxygen: Synthesis of Diols", ANGEWANDTE CHEMIE INTERNATIONAL EDITION, 38, pp. 3026-3028 (1999)
	Ell, et al., "Vanadyl Acetylacetonate as Peroxide Activator in Osmium-Catalyzed Dihydroxylation of Olefins by Hydrogen Peroxide", TETRAHEDRON LETTERS, 42, pp. 2569-2571 (2001)
	Wirth, "Oxygen and Osmium-A New Alliance for Dihydroxylations", ANGEWANDTE CHEMIE INTERNATIONAL EDITION., 39, pp. 334-335 (2000)
	Dobler, et al., "Osmium-Catalyzed Dihydroxylation of Olefins Using Dioxygen or Air as the Terminal Oxidant", JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 122, pp. 10289-10297 (2000)
	Chemical Abstract No. 1991: 206710, Rao, et al, "Sharpless Asymmetric Dihydroxylation of Aryloxy Allyl Ethers: A Simple Route to Chiral β -Blockers; Tetrahedron, 1990, pp. 697-698 (Abstract)
	Chemical Abstracts No. 2001: 55239, Sakamoto, et al., "Preparation of Epoxides from Olefins and Catalysts for it"; JP Patent No. 2001-17863, 1-23-01 (Abstract)
	U.S. Patent Application Serial No. 09/899,409; filed July 5, 2001; Boriack, et al.

EXAMINER

ROBERT SELLERS

DATE CONSIDERED

3/7/05

* EXAMINER:

Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to Applicant.